

AMENDMENTS TO THE SPECIFICATION

Replace the paragraph beginning at page 10, line 19 with:

$$m_{pq} = \sum_x \sum_y x^p y^q f(x, y) dx dy.$$

Replace the paragraph beginning at page 12, line 8 with:

$$m_p = \sum_x \sum_y x^p f(x, y) dx dy,$$

$$m_q = \sum_x \sum_y y^q f(x, y) dx dy,$$

Replace the paragraph beginning at page 12, line 31 with:

$$m_s = \sum_x \sum_y r^s f(x, y) dx dy, \quad r = \sqrt{x^2 + y^2}$$

Replace the paragraph beginning at page 13, line 10 with:

$$m_k = \sum_x \sum_y (x - y)^k f(x, y) dx dy,$$

Replace the paragraph beginning at page 13, line 16 with:

$$[[m_k^{-1}]]m_{-k} = \sum_x \sum_y \frac{f(x, y)}{(x - y)^k} dx dy, x \neq y$$

Replace the paragraph beginning at page 13, line 26 with:

$$m_q = \sum_x \sum_y y^q f(x, y) dx dy$$

A. is minimal if $q > 0$ and the object is situated close to the x-axis or maximal if $q < 0$ and the object is like-wise situated close to the x-axis.

Replace the paragraph beginning at page 14, line 1 with:

B.
$$m_p = \sum_x \sum_y x^p f(x, y) dx dy$$
 is minimal if $p > 0$ and the object is situated close to the y-axis or maximal if $p < 0$ and the object is like-wise situated close to the y-axis.

Replace the paragraph beginning at page 14, line 4 with:

C.
$$m'_q = \sum_x \sum_y (c - y)^q f(x, y) dx dy$$
 wherein c represents the number of columns is minimal if $q > 0$ and the object is situated nearby the juxtaposed image border parallel to the x-axis and maximal if the object is like-wise situated nearby the juxtaposed image border parallel to the x-axis but $q < 0$. This situation is obtained e.g. by reflecting (flipping) the image of configuration A around the image-centred vertical, or by rotating 180 degrees the image of configuration A around the image centre.

Replace the paragraph beginning at page 14, line 12 with:

D.
$$m'_p = \sum_x \sum_y (r - x)^p f(x, y) dx dy$$
 with r representing the number of rows is minimal if $p > 0$ and the object is situated nearby the juxtaposed image border parallel to the y-axis and maximal if the object is situated nearby the juxtaposed image border parallel to the y-axis but $p < 0$. This situation is obtained e.g. by reflecting (flipping) the image of configuration B around the image-centred horizontal, or by rotating 180 degrees the image of configuration B around the image centre.

Replace the paragraph beginning at page 15, line 1 with:

$$m_s = \sum_x \sum_y r^s f(x, y) dx dy, \quad r = \sqrt{(x - x_i)^2 + (y - y_i)^2}$$

Replace the paragraph beginning at page 11, line 20 with:

The ~~integration~~ summation area in computing the moment sums may be confined to one or more image regions obtained by segmentation. However, the segmentation may be implicit in that pixels with low gray value $f(x, y)$ have less influence and hence are implicitly ignored in the moment sum. This implicit segmentation of direct exposure area may be used in the task of detecting the thorax side in mammograms in that pixels of the direct exposure area have low gray value; hence their contribution to the moment sum is negligible compared to the contribution of the breast mass pixels. The moment m_{pq} may therefore be obtained by including all image pixels in the sum, without explicitly segmenting the breast mass.